

**MOUNTAIN SPRINGS WATER CORPORATION (PWSNO 1090200)**  
**SOURCE WATER ASSESSMENT REPORT**

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**April 24, 2002**



**State of Idaho**  
**Department of Environmental Quality**

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## Executive Summary

Under the Safe Drinking Water Act Amendments of 1996, all states are required by the U.S. Environmental Protection Agency to assess every source of public drinking water for its relative sensitivity to contaminants regulated by the act. This risk assessment is based on a land use inventory in the well recharge zone, sensitivity factors associated with how the well was constructed, and aquifer characteristics.

This report, *Source Water Assessment for Mountain Springs Water Corporation*, describes the public drinking water wells; the well recharge zone and potential contaminant sites located inside the recharge zone boundaries.

This assessment, taken into account with local knowledge and concerns, should be used as a planning tool to develop and implement appropriate protection measures for this public water system. **The results should not be used as an absolute measure of risk and they should not be used to undermine public confidence in the water system.**

Mountain Springs Water Corporation drinking water is supplied by 3 wells drawing water from a small aquifer in the vicinity of Sagle, Idaho. The corporation currently serves about 40 households in rural Bonner County, and has the capacity to supply a total of 225 lots. Historically, Mountain Springs Water Corporation has had few water quality problems. The Langlier index for the system indicates aggressive water, but tests to determine whether lead and copper are leaching from domestic plumbing have been inconclusive. The system is well run, conscientiously operated and maintained. A groundwater Susceptibility Analysis conducted by DEQ March 26, 2002 found the wells to be moderately susceptible to contamination, mostly because of natural risk factors associated with local geology.

This assessment should be used as a basis for determining appropriate new protection measures or re-evaluating existing protection efforts. No matter what ranking a source receives, protection is always important. Whether the source is currently located in a “pristine” area or an area with numerous industrial and/or agricultural land uses that require education and surveillance, the way to ensure good water quality in the future is to act now to protect valuable water supply resources.

Most of the delineated capture zone for the wells is outside the direct jurisdiction of Mountain Springs Water Corporation. Working with the Bonner County Planning and Zoning board and other public drinking water systems drawing from the Sagle Aquifer to establish a wellhead protection overlay zone is probably the most effective way to prevent contamination due to land use changes in the area. In its own service area and in the capture zone for the wells, the system should promote ground water stewardship programs. Educational workshops devoted to topics like septic tank maintenance and household use of pesticide, herbicides and fertilizer would be useful in a rural neighborhood. Cross connection prevention, particularly from stock tanks and automatic irrigation systems, is another important subject in a rural area.

Due to the time involved with the movement of ground water, source water protection activities should be aimed at long-term management strategies even though these strategies may not yield results in the near term. For assistance in developing protection strategies, please contact the Coeur d'Alene Regional office of the Department of Environmental Quality or the Idaho Rural Water Association.

# SOURCE WATER ASSESSMENT FOR MOUNTAIN SPRINGS WATER CORPORATION

## Section 1. Introduction - Basis for Assessment

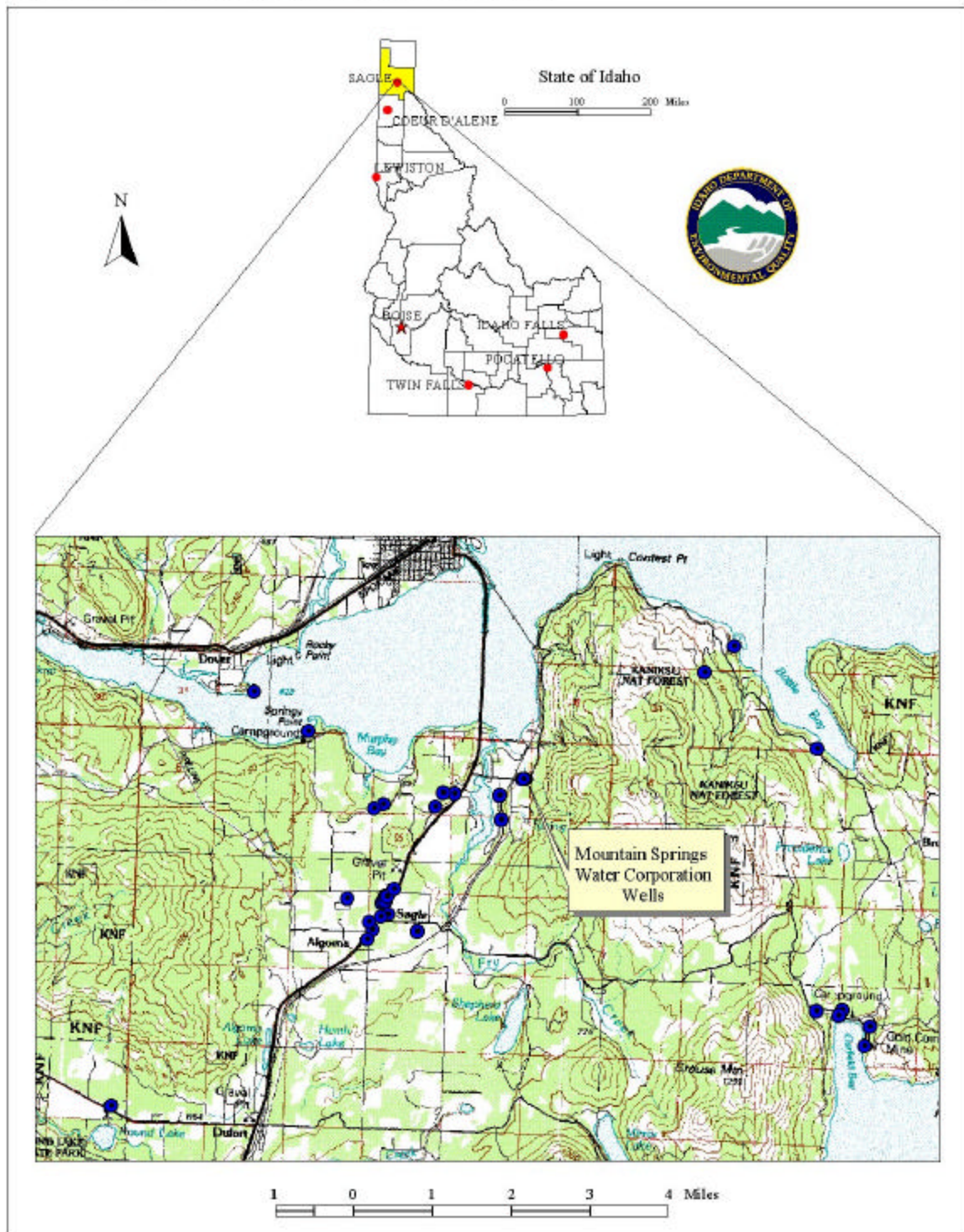
The following sections contain information necessary for understanding how and why this assessment was conducted. **It is important to review this information to understand what the ranking of this source means.** A map showing the delineated source water assessment area and an inventory of significant potential sources of contamination identified within that area are included. The ground water susceptibility analysis worksheets used to develop this assessment are attached.

### Level of Accuracy and Purpose of the Assessment

The Idaho Department of Environmental Quality (DEQ) is required by the U.S. Environmental Protection Agency (EPA) to assess every public drinking water source in Idaho for its relative susceptibility to contaminants regulated by the Safe Drinking Water Act. These assessments are based on a land use inventory inside the delineated recharge zones, sensitivity factors associated with how the well is constructed, and aquifer characteristics. The state must complete more than 2900 assessments by May of 2003. Because resources and the time available to accomplish assessments are limited, an in-depth, site-specific investigation for every public water system is not possible.

**The results of the source water assessment should not be used as an absolute measure of risk and they should not be used to undermine public confidence in the water system.** The ultimate goal of this assessment is to provide data to local communities for developing a protection strategy for their drinking water supply. The Idaho Department of Environmental Quality recognizes that pollution prevention activities generally require less time and money to implement than treating a public water supply system once it has been contaminated. DEQ encourages communities to balance resource protection with economic growth and development. The decision as to the amount and types of information necessary to develop a source water protection program should be determined by the local community based on its own needs and limitations. Wellhead or source water protection is one facet of a comprehensive growth plan, and it can complement ongoing local planning efforts.

Figure 1. Geographic Location of Mountain Springs Water Corporation



## Section 2. Preparing for the Assessment

### Defining the Zones of Contribution - Delineation

The delineation process establishes the physical area around a well that will become the focal point of the assessment. The process includes mapping the boundaries of the well recharge area into time of travel zones indicating the number of years necessary for a particle of water to reach a well. DEQ used a refined computer model approved by the EPA to determine the time of travel (TOT) for water the Mountain Springs Water Corporation well pumps from its aquifer. The computer model used data assimilated by DEQ from a variety of sources including local well logs and the report *Steady State Simulation of Nutrient and Contaminant Transport in the Southside Aquifer Near Sagle, Idaho* prepared by J-U-B Engineers, Inc. for Southside Water and Sewer District.

Mountain Springs Water Corporation serves a rural community of approximately 140 people located west of the railroad and east of Fry Creek in the vicinity of Sagle, Idaho (Figure 1). Water for domestic use and fire protection for Mountain Springs Water customers is supplied by 3 wells. Well #1 is 193 feet deep and produces about 55 GPM. Well #2 is 109 feet deep and produces approximately 100 GPM. Well #3 is 135 feet deep and is not yet in use. A pumping test conducted when the well was constructed demonstrated a capacity of 600 GPM.

The delineated source water assessment area for Mountain Springs Water Corporation covers 149 acres. The delineation is about 0.6 miles long and is divided into 0-3, 3-6 and 6-10 year time of travel zones. The primary direction of ground water flow is from south to north.

### Identifying Potential Sources of Contamination

The goal of the inventory process is to locate and describe those facilities, land uses, and environmental conditions that are potential sources of ground water contamination. Inventories for public water systems in Idaho were conducted in two-phases. The first phase involved identifying and documenting potential contaminant sources inside individual source water assessment areas through the use of computer databases and Geographic Information System maps developed by DEQ. The maps and inventory lists were then sent to system operators for verification and correction in the second or enhanced part of the inventory process. Gerald Lewis completed this part of the inventory for Mountain Springs Water Corporation.

Figure 2, *Mountain Springs Water Corporation Delineation and Potential Contaminant Inventory* on page 7 of this report shows the location of the Mountain Springs Water Corporation wells, and the zone of contribution DEQ delineated for them. The delineated area lies on the eastern side of the Sagle Slough.

Many potential sources of contamination are regulated at the federal level, state level, or both to reduce the risk of release. When a business, facility, or property is identified as a potential contaminant source, this should not be interpreted to mean that this business, facility, or property is in violation of any local, state, or federal environmental law or regulation. What it does mean is that the potential for contamination exists due to the nature of the business, industry, or operation.

### **Section 3. Susceptibility Analysis**

The susceptibility to contamination of all groundwater sources in Idaho is being assessed on the following factors:

- physical integrity of the well,
- hydrologic characteristics,
- land use characteristics, and potentially significant contaminant sources
- historic water quality

The susceptibility rankings are specific to a particular potential contaminant or category of contaminants. A high susceptibility rating relative to one potential contaminant does not mean that the water system is at the same risk for all other potential contaminants. The relative ranking that is derived for each well is a qualitative, screening-level step that, in many cases, uses generalized assumptions and best professional judgement. The following summaries describe the rationale for the susceptibility ranking. The Susceptibility Analysis Worksheets in Attachment A show in detail how the Mountain Springs Water Corporation wells scored.

#### **Well Construction**

Well construction directly affects the ability of the wells to protect the aquifer from contaminants. Lower scores imply a well that can better protect the water. This portion of the susceptibility analysis relies on information from individual well logs and from the most recent sanitary survey of the public water system.

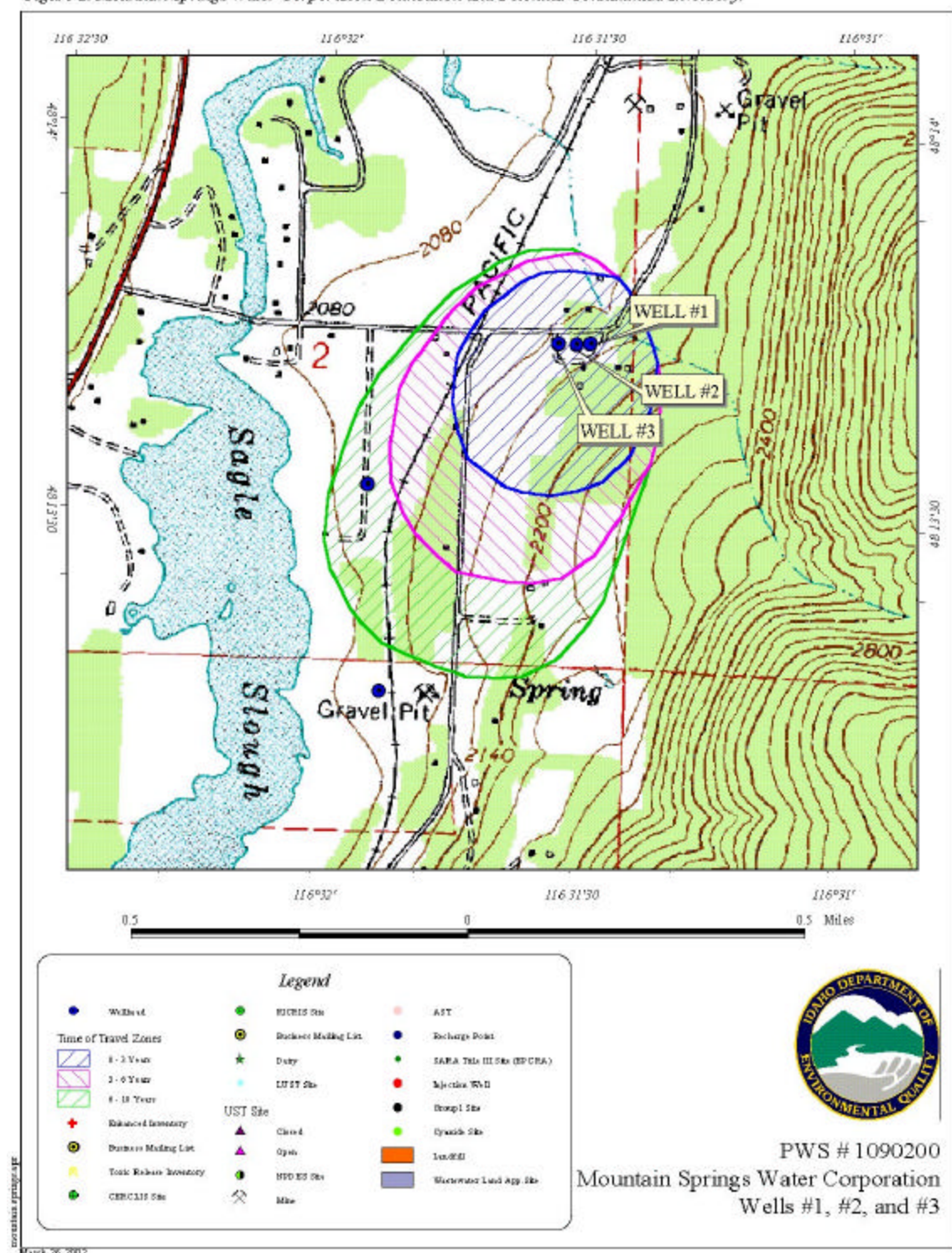
Well #1 was drilled in 1992 to a depth of 200 feet. The 8-inch steel casing extends from 1 foot above ground to a depth of 163 feet, passing through a 15-foot clay lens from 45 to 60 feet below the surface. The well screen is set between 163 and 193 feet below the surface. The surface seal is 20 feet deep, terminating in a layer of mixed clay and gravel.

Well #2 was drilled in 1993 to a depth of 109 feet. The surface seal is 18 feet deep, terminating in a layer of sand and gravel. Current Idaho Department of Water Resources standards require a minimum surface seal depth of 20 feet for public drinking water wells drilled in an unconsolidated formation. The 8-inch steel casing is 98 feet deep and extends through a low permeability layer of fine sand and silt. The well is screened from 98 to 108 feet below the surface.

Well #3 was completed in August 1994. The surface seal is 18 feet deep, terminating in gravel. The 8-inch steel casing passes through a layer of clay between 86 and 95 feet below ground. Table 1 summarizes well construction and site characteristics.



Figure 2. Mountain Springs Water Corporation Delineation and Potential Contaminant Inventory.



**Table 1. Selected Characteristics of Mountain Springs Water Corporation Wells**

Well	Total Depth (ft)	Casing Depth (ft)	Seal Depth (ft)	Screen Depth Range (ft)	Static Water Level(ft)
Well #1	200	163	20	163/193	78
Well #2	109	98	18	98/108	81
Well #3	135	120	18	120/135	62

### Hydrologic Sensitivity

The hydrologic sensitivity score for the Mountain Springs Water Corporation Well #1 is 3 points out six points possible. For Wells #2 and #3 the hydrologic sensitivity score is 4 points. The scores reflect natural geologic conditions at the well site and in the recharge zone. Soils in the capture zone delineated for the wells are generally poorly drained to moderately well drained. Poorly drained to moderately well drained soils are deemed more protective of ground water than soils which drain faster. The depth to ground water in all the wells is far less than 300 feet. The soil column above a deep water table provides some protection from potential contaminants through adsorption and other mechanisms.

The well logs reports that soils above the water table at Well #1 are clay and sand or clay and gravel in addition to a 15 foot clay lens. At Well #2 sand and gravel predominate in the soil column above the water table. At Well #3 the first 25 feet below the surface is gravel. Gravel mixed with silt extends from 25 to 60 feet below the surface. Water was first encountered between 60 and 70 feet down.

### Potential Contaminant Sources and Land Use

Land inside The Mountain Springs Water Corporation well recharge zone is rural residential. A municipal sewer serves homes in the area. The only potential contaminant source documented inside the delineated area is the rail line that crosses all three time of travel zones. The county road crossing the delineation boundaries appears to carry low volume local traffic, and is not considered a significant potential contaminant source. There is a gravel pit just outside the 6-10 year time of travel zone delineated for the wells.

**Table 2. Mountain Springs Water Corporation Potential Contaminant Inventory**

SITE DESCRIPTION	POTENTIAL CONTAMINANTS <sup>1</sup>	TIME OF TRAVEL ZONE	SOURCE OF INFORMATION
Rail Line	IOC, SOC, VOC Microbial	All	USGS Map

<sup>1</sup> IOC = inorganic chemical, VOC = volatile organic chemical, SOC = synthetic organic chemical

### Historic Water Quality

Historically, Mountain Springs Water Corporation has had few water quality problems. The Langlier index for the wells, 2.04 to 2.5, indicates that the water may be aggressive, but tests to see whether lead and copper are being leached from residential plumbing are inconclusive. Future testing needs to be conducted on the first samples drawn after a minimum of 6 hours of no water use in the home.



Mountain Springs Water Corporation tests monthly for total coliform bacteria and had had no confirmed positive results. Chemical and radiological test results are summarized below.

**Table 3. Mountain Springs Water Corporation Chemical Test Results**

Primary IOC Contaminants (Mandatory Tests)							
Contaminant	MCL (mg/l)	Results (mg/l)	Dates	Contaminant	MCL (mg/l)	Results (mg/l)	Dates
Antimony	0.006	ND	4/12/92 to 1/12/02	Nitrate	10	0.24 to 0.5	4/2/93 to 12/6/98
Arsenic	0.01	ND	4/12/92 to 1/12/024	Nickel	N/A	ND	4/12/92 to 1/12/02
Barium	2.0	ND	4/12/92 to 1/12/02	Selenium	0.05	ND	4/12/92 to 1/12/02
Beryllium	0.004	ND	4/12/92 to 1/12/02	Sodium	N/A	3.19 to 5.0	4/12/92 to 1/12/01
Cadmium	0.005	ND	4/12/92 to 1/12/02	Thallium	0.002	ND	4/12/92 to 1/12/02
Chromium	0.1	ND	4/12/92 to 1/12/02	Cyanide	0.02	ND	4/12/92 to 1/12/02
Mercury	0.002	ND	4/12/92 to 1/12/02	Fluoride	4.0	0.15 to 0.3	4/12/92, 1/12/01
Secondary and Other IOC Contaminants (Optional Tests)							
Contaminant		Recommended Maximum (mg/l)	Results (mg/l)			Dates	
Calcium			9.5 to 23 mg/l			4/12/92 to 9/15/94	
Chloride			1 mg/l			4/2/93	
Iron			0.03 to 0.09 mg/l			4/12/92 to 9/15/94	
Magnesium			1.77 mg/l			9/15/94	
Silica			23.2 mg/l			9/15/94	
Sulfate			5.38 to 8.9 mg/l			4/2/93 to 1/12/01	
Zinc			0.01 mg/l			4/12/92	
Regulated and Unregulated Synthetic Organic Chemicals							
Contaminant				Results		Dates	
29 Regulated and 13 Unregulated Synthetic Organic Compounds				None Detected		12/6/98, 1/12/01	
Regulated and Unregulated Volatile Organic Chemicals							
Contaminant				Results		Dates	
21 Regulated And 16 Unregulated Volatile Organic Compounds				None Detected		9/15/94, 12,6,98	
Radiological Contaminants							
Contaminant			MCL	Results	Dates		
Gross Alpha, Including Ra & U			15 pC/l	0.2 to 1.9 pC/l	4/2/93 to 1/12/01		
Gross Beta Particle Activity			4 mrem/year	1.0 to 2.1 mrem	4/2/93 to 1/12/01		

### Final Susceptibility Ranking

The Mountain Springs Water Corporation wells ranked moderately susceptible to all classes of regulated contaminants. Risk factors associated with local geology added the most points to the final susceptibility scores. Total scores in each category are summarized on Table 4. The complete analysis worksheets for the wells can be found in Attachment A.

The final scores for the susceptibility analysis were determined using the following formulas:

- 1) VOC/SOC/IOC Final Score = Hydrologic Sensitivity + System Construction + (Potential Contaminant/Land Use x 0.2)
- 2) Microbial Final Score = Hydrologic Sensitivity + System Construction + (Potential Contaminant/Land Use x 0.35)

The final ranking categories are as follows:

- 0 - 5        Low Susceptibility
- 6 - 12      Moderate Susceptibility
- > 13       High Susceptibility

**Table 4. Summary of Mountain Springs Water Corporation Susceptibility Evaluation**

<b>Cumulative Susceptibility Scores</b>						
Well Name	System Construction	Hydrologic Sensitivity	Contaminant Inventory			
			IOC	VOC	SOC	Microbial
Well #1	2	3	4	4	4	3
Well #2	3	4	4	4	4	3
Well #3	3	4	4	4	4	3
<b>Final Susceptibility Scores/ Ranking</b>						
	IOC	VOC	SOC	Microbial		
Well #1	6//Moderate	6//Moderate	6//Moderate	6//Moderate		
Well #2	8//Moderate	8//Moderate	8//Moderate	8//Moderate		
Well #3	8//Moderate	8//Moderate	8//Moderate	8//Moderate		

IOC = inorganic chemical, VOC = volatile organic chemical, SOC = synthetic organic chemical

HIGH\* - Indicates source automatically scored as high susceptibility due to presence of bacteria or a VOC, SOC or an IOC above the maximum contaminant level in the tested drinking water

## Section 4. Options for Source Water Protection

The susceptibility assessment should be used as a basis for determining appropriate new protection measures or re-evaluating existing protection efforts. No matter what the susceptibility ranking a source receives, protection is always important. Whether the source is currently located in a “pristine” area or an area with numerous industrial and/or agricultural land uses that require education and surveillance, the way to ensure good water quality in the future is to act now to protect valuable water supply resources.

Mountain Springs Water Corporation has already taken significant steps toward protecting its water supply. The land around the wells is fenced to control access. Sanitary surveys note that the system is conscientiously operated and maintained. The only current water quality issue to be resolved is whether the water leaches lead and copper from residential plumbing. The next round of lead and copper testing should emphasize drawing the samples after at least 6 hours without water usage at the sampling sites.

Because most of the delineated capture zone for the wells is outside the direct jurisdiction of Mountain Springs Water Corporation, working with the Bonner County Planning and Zoning board and other public drinking water systems drawing from the Sage Aquifer to establish a wellhead protection overlay zone is probably the most effective way to prevent contamination due to land use changes in the area.

In its own service area and in the capture zone for the wells, the system should promote ground water stewardship programs. Home\*A\*Syst and Farm\*A\*Syst for example are voluntary programs that help people assess environmental risks on their property and find technical support for making needed changes.

The Internet has dozens of sites devoted to ground water stewardship programs that are tailored various age groups. 4H clubs in the area may be interested in undertaking water protection activities as a service project. The County Extension office is a resource for workshops devoted to topics like septic tank maintenance and household use of pesticide, herbicides and fertilizer that would be useful in a rural neighborhood. Cross connection prevention, particularly from stock tanks and automatic irrigation systems, is another important subject in a rural area.

Partnerships with state and local agencies and industry groups should also be established. For instance, source water protection activities for agriculture should be coordinated with the Idaho State Department of Agriculture, local Soil Conservation District, and the Natural Resources Conservation Service. Due to the time involved with the movement of ground water, wellhead protection activities should be aimed at long-term management strategies even though these strategies may not yield results in the near term.

### **Assistance**

Public water suppliers and users may call the following IDEQ offices with questions about this assessment and to request assistance with developing and implementing a local protection plan. In addition, draft protection plans may be submitted to the IDEQ office for preliminary review and comments.

Coeur d'Alene Regional DEQ Office      (208) 769-1422

State IDEQ Office                                      (208) 373-0502

Website: <http://www.deq.state.id.us>

Water suppliers serving fewer than 10,000 persons may contact John Bokor, Idaho Rural Water Association, at (208) 343-7001 for assistance with wellhead protection strategies.

## References Cited

Great Lakes-Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers, 1997. "Recommended Standards for Water Works."

Idaho Department of Agriculture, 1998. Unpublished Data.

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Natural Resource Conservation Service, 1991. Idaho Snake-Payette Rivers Hydrologic Unit Plan of Work. March 1991.

United States Geological Survey, 1986. Quality of Ground Water in the Payette River Basin, Idaho. United States Geological Survey. Water Resources Investigation Report 86-4013.

University of Idaho. 1986. Ground Water Resources in a Portion of Payette County, Idaho. Idaho Water Resources Research Institute. University of Idaho. Moscow, Idaho. April 1986.

## Attachment A

# Mountain Springs Water Corporation Susceptibility Analysis Worksheets

**Ground Water Susceptibility**

Public Water System Name : **MOUNTAIN SPRINGS WATER CORP**  
 Public Water System Number : **1090200**

Source: **WELL #1**  
 3/26/02 8:34:05 AM

<b>1. System Construction</b>		<b>SCORE</b>			
Drill Date	3/4/92				
Driller Log Available	YES				
Sanitary Survey (if yes, indicate date of last survey)	YES 2001				
Well meets IDWR construction standards	YES	0			
Wellhead and surface seal maintained	YES	0			
Casing and annular seal extend to low permeability unit	CASING YES; SEAL NO	1			
Highest production 100 feet below static water level	NO	1			
Well located outside the 100 year flood plain	YES	0			
<b>Total System Construction Score</b>		<b>2</b>			
<b>2. Hydrologic Sensitivity</b>					
Soils are poorly to moderately drained	YES	0			
Vadose zone composed of gravel, fractured rock or unknown	NO	0			
Depth to first water > 300 feet	NO	1			
Aquitard present with > 50 feet cumulative thickness	NO	2			
<b>Total Hydrologic Score</b>		<b>3</b>			
<b>3. Potential Contaminant / Land Use - ZONE 1A (Sanitary Setback)</b>		IOC	VOC	SOC	Microbial
		Score	Score	Score	Score
Land Use Zone 1A	RURAL RESIDENTIAL	1	1	1	1
Farm chemical use high	NO	0	0	0	
IOC, VOC, SOC, or Microbial sources in Zone 1A	NO	NO	NO	NO	NO
<b>Total Potential Contaminant Source/Land Use Score - Zone 1A</b>		<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>
<b>Potential Contaminant / Land Use - ZONE 1B ( 3 YR. TOT)</b>					
Contaminant sources present (Number of Sources)	YES	1	1	1	1
(Score = # Sources X 2 ) 8 Points Maximum		2	2	2	2
Sources of Class II or III leacheable contaminants or Microbials	YES	1	1	1	
4 Points Maximum		1	1	1	
Zone 1B contains or intercepts a Group 1 Area	NO	0	0	0	0
Land use Zone 1B	Less Than 25% Agricultural Land	0	0	0	0
<b>Total Potential Contaminant Source / Land Use Score - Zone 1B</b>		<b>3</b>	<b>3</b>	<b>3</b>	<b>2</b>
<b>Potential Contaminant / Land Use - ZONE II (6 YR. TOT)</b>					
Contaminant Sources Present	NO	0	0	0	
Sources of Class II or III leacheable contaminants or Microbials	NO	0	0	0	
Land Use Zone II	Less than 25% Agricultural Land	0	0	0	
<b>Potential Contaminant Source / Land Use Score - Zone II</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Potential Contaminant / Land Use - ZONE III (10 YR. TOT)</b>					
Contaminant Source Present	NO	0	0	0	
Sources of Class II or III leacheable contaminants or Microbials	NO	0	0	0	
Is there irrigated agricultural lands that occupy > 50% of Zone	NO	0	0	0	
<b>Total Potential Contaminant Source / Land Use Score - Zone III</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Cumulative Potential Contaminant / Land Use Score</b>		<b>4</b>	<b>4</b>	<b>4</b>	<b>3</b>
<b>4. Final Susceptibility Source Score</b>		<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>
<b>5. Final Well Ranking</b>		Moderate	Moderat	Moderate	Moderate



## Ground Water Susceptibility

Public Water System Name : **MOUNTAIN SPRINGS WATER CORP**

Source: **WELL #2**

Public Water System Number : **1090200**

3/26/02 8:34:18 AM

<b>1. System Construction</b>		<b>SCORE</b>			
Drill Date	3/16/93				
Driller Log Available	YES				
Sanitary Survey (if yes, indicate date of last survey)	YES 2001				
Well meets IDWR construction standards	NO	1			
Wellhead and surface seal maintained	YES	0			
Casing and annular seal extend to low permeability unit	CASING YES, SEAL NO	1			
Highest production 100 feet below static water level	NO	1			
Well located outside the 100 year flood plain	YES	0			
<b>Total System Construction Score</b>		<b>3</b>			
<b>2. Hydrologic Sensitivity</b>					
Soils are poorly to moderately drained	YES	0			
Vadose zone composed of gravel, fractured rock or unknown	YES	1			
Depth to first water > 300 feet	NO	1			
Aquitard present with > 50 feet cumulative thickness	NO	2			
<b>Total Hydrologic Score</b>		<b>4</b>			
<b>3. Potential Contaminant / Land Use - ZONE 1A (Sanitary Setback)</b>		IOC	VOC	SOC	Microbial
		Score	Score	Score	Score
Land Use Zone 1A	RURAL RESIDENTIAL	1	1	1	1
Farm chemical use high	NO	0	0	0	
IOC, VOC, SOC, or Microbial sources in Zone 1A	NO	NO	NO	NO	NO
<b>Total Potential Contaminant Source/Land Use Score - Zone 1A</b>		<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>
<b>Potential Contaminant / Land Use - ZONE 1B ( 3 YR. TOT)</b>					
Contaminant sources present (Number of Sources)	YES	1	1	1	1
(Score = # Sources X 2 ) 8 Points Maximum		2	2	2	2
Sources of Class II or III leacheable contaminants or Microbials	YES	1	1	1	
4 Points Maximum		1	1	1	
Zone 1B contains or intercepts a Group 1 Area	NO	0	0	0	0
Land use Zone 1B	Less Than 25% Agricultural Land	0	0	0	0
<b>Total Potential Contaminant Source / Land Use Score - Zone 1B</b>		<b>3</b>	<b>3</b>	<b>3</b>	<b>2</b>
<b>Potential Contaminant / Land Use - ZONE II (6 YR. TOT)</b>					
Contaminant Sources Present	NO	0	0	0	
Sources of Class II or III leacheable contaminants or Microbials	NO	0	0	0	
Land Use Zone II	Less than 25% Agricultural Land	0	0	0	
<b>Potential Contaminant Source / Land Use Score - Zone II</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Potential Contaminant / Land Use - ZONE III (10 YR. TOT)</b>					
Contaminant Source Present	NO	0	0	0	
Sources of Class II or III leacheable contaminants or Microbials	NO	0	0	0	
Is there irrigated agricultural lands that occupy > 50% of Zone	NO	0	0	0	
<b>Total Potential Contaminant Source / Land Use Score - Zone III</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Cumulative Potential Contaminant / Land Use Score</b>		<b>4</b>	<b>4</b>	<b>4</b>	<b>3</b>
<b>4. Final Susceptibility Source Score</b>		<b>8</b>	<b>8</b>	<b>8</b>	<b>8</b>
<b>5. Final Well Ranking</b>		Moderate	Moderate	Moderate	Moderate

**Ground Water Susceptibility**Public Water System Name : **MOUNTAIN SPRINGS WATER CORP**Source: **WELL #3**Public Water System Number : **1090200**

3/26/02 8:34:33 AM

<b>1. System Construction</b>		<b>SCORE</b>			
Drill Date	8/24/94				
Driller Log Available	YES				
Sanitary Survey (if yes, indicate date of last survey)	YES 2001				
Well meets IDWR construction standards	NO	1			
Wellhead and surface seal maintained	YES	0			
Casing and annular seal extend to low permeability unit	CASING YES, SEAL NO	1			
Highest production 100 feet below static water level	NO	1			
Well located outside the 100 year flood plain	YES	0			
<b>Total System Construction Score</b>		<b>3</b>			
<b>2. Hydrologic Sensitivity</b>					
Soils are poorly to moderately drained	YES	0			
Vadose zone composed of gravel, fractured rock or unknown	YES	1			
Depth to first water > 300 feet	NO	1			
Aquitard present with > 50 feet cumulative thickness	NO	2			
<b>Total Hydrologic Score</b>		<b>4</b>			
		IOC	VOC	SOC	Microbial
		Score	Score	Score	Score
<b>3. Potential Contaminant / Land Use - ZONE 1A (Sanitary Setback)</b>					
Land Use Zone 1A	RURAL RESIDENTIAL	1	1	1	1
Farm chemical use high	NO	0	0	0	
IOC, VOC, SOC, or Microbial sources in Zone 1A	NO	NO	NO	NO	NO
<b>Total Potential Contaminant Source/Land Use Score - Zone 1A</b>		<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>
<b>Potential Contaminant / Land Use - ZONE 1B ( 3 YR. TOT)</b>					
Contaminant sources present (Number of Sources)	YES	1	1	1	1
(Score = # Sources X 2 ) 8 Points Maximum		2	2	2	2
Sources of Class II or III leacheable contaminants or Microbials	YES	1	1	1	
4 Points Maximum		1	1	1	
Zone 1B contains or intercepts a Group 1 Area	NO	0	0	0	0
Land use Zone 1B	Less Than 25% Agricultural Land	0	0	0	0
<b>Total Potential Contaminant Source / Land Use Score - Zone 1B</b>		<b>3</b>	<b>3</b>	<b>3</b>	<b>2</b>
<b>Potential Contaminant / Land Use - ZONE II (6 YR. TOT)</b>					
Contaminant Sources Present	NO	0	0	0	
Sources of Class II or III leacheable contaminants or Microbials	NO	0	0	0	
Land Use Zone II	Less than 25% Agricultural Land	0	0	0	
<b>Potential Contaminant Source / Land Use Score - Zone II</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Potential Contaminant / Land Use - ZONE III (10 YR. TOT)</b>					
Contaminant Source Present	NO	0	0	0	
Sources of Class II or III leacheable contaminants or Microbials	NO	0	0	0	
Is there irrigated agricultural lands that occupy > 50% of Zone	NO	0	0	0	
<b>Total Potential Contaminant Source / Land Use Score - Zone III</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Cumulative Potential Contaminant / Land Use Score</b>		<b>4</b>	<b>4</b>	<b>4</b>	<b>3</b>
<b>4. Final Susceptibility Source Score</b>		<b>8</b>	<b>8</b>	<b>8</b>	<b>8</b>
<b>5. Final Well Ranking</b>		Moderate	Moderate	Moderate	Moderate

## POTENTIAL CONTAMINANT INVENTORY

### LIST OF ACRONYMS AND DEFINITIONS

**AST (Aboveground Storage Tanks)** – Sites with aboveground storage tanks.

**BML (Business Mailing List)**– This list contains potential contaminant sites identified through a yellow pages database search of standard industry codes (SIC).

**CERCLIS** – This includes sites considered for listing under the **Comprehensive Environmental Response Compensation and Liability Act (CERCLA)**. CERCLA, more commonly known as Superfund is designed to clean up hazardous waste sites that are on the national priority list (NPL).

**Cyanide Site** – DEQ permitted and known historical sites/facilities using cyanide.

**Dairy** – Sites included in the primary contaminant source inventory represent those facilities regulated by Idaho State Department of Agriculture (ISDA) and may range from a few head to several thousand head of milking cows.

**Deep Injection Well** – Injection wells regulated under the Idaho Department of Water Resources generally for the disposal of stormwater runoff or agricultural field drainage.

**Enhanced Inventory** – Enhanced inventory locations are potential contaminant source sites added by the water system. These can include new sites not captured during the primary contaminant inventory, or corrected locations for sites not properly located during the primary contaminant inventory. Enhanced inventory sites can also include miscellaneous sites added by the Idaho Department of Environmental Quality (DEQ) during the primary contaminant inventory.

**Floodplain** – This is a coverage of the 100year floodplains.

**Group 1 Sites** – These are sites that show elevated levels of contaminants and are not within the priority one areas.

**Inorganic Priority Area** – Priority one areas where greater than 25% of the wells/springs show constituents higher than primary standards or other health standards.

**Landfill** – Areas of open and closed municipal and non-municipal landfills.

**LUST (Leaking Underground Storage Tank)** – Potential contaminant source sites associated with leaking underground storage tanks as regulated under RCRA.

**Mines and Quarries** – Mines and quarries permitted through the Idaho Department of Lands.)

**Nitrate Priority Area** – Area where greater than 25% of wells/springs show nitrate values above 5mg/l.

**NPDES (National Pollutant Discharge Elimination System)**

– Sites with NPDES permits. The Clean Water Act requires that any discharge of a pollutant to waters of the United States from a point source must be authorized by an NPDES permit.

**Organic Priority Areas** – These are any areas where greater than 25 % of wells/springs show levels greater than 1% of the primary standard or other health standards.

**Recharge Point** – This includes active, proposed, and possible recharge sites on the Snake River Plain.

**RICRIS** – Site regulated under **Resource Conservation Recovery Act (RCRA)**. RCRA is commonly associated with the cradle to grave management approach for generation, storage, and disposal of hazardous wastes.

**SARA Tier II (Superfund Amendments and Reauthorization Act Tier II Facilities)** – These sites store certain types and amounts of hazardous materials and must be identified under the Community Right to Know Act.

**Toxic Release Inventory (TRI)** – The toxic release inventory list was developed as part of the Emergency Planning and Community Right to Know (Community Right to Know) Act passed in 1986. The Community Right to Know Act requires the reporting of any release of a chemical found on the TRI list.

**Closed Or Open UST (Underground Storage Tank)** – Potential contaminant source sites associated with underground storage tanks regulated as regulated under RCRA.

**Wastewater Land Applications Sites** – These are areas where the land application of municipal or industrial wastewater is permitted by DEQ.

**Wellheads** – These are drinking water well locations regulated under the Safe Drinking Water Act. They are not treated as potential contaminant sources.

**NOTE:** Many of the potential contaminant sources were located using a geocoding program where mailing addresses are used to locate a facility. Field verification of potential contaminant sources is an important element of an enhanced inventory.

Where possible, a list of potential contaminant sites unable to be located with geocoding will be provided to water systems to determine if the potential contaminant sources are located within the source water assessment area.